

15A NCAC 02H .1055 MDC FOR PERMEABLE PAVEMENT

The purpose of this Rule is to set forth the design requirements for permeable pavement systems that are constructed to meet the requirements of this Section.

- (1) **SOIL INVESTIGATION.** For infiltrating pavement systems, site-specific soil investigation shall be performed to establish the hydraulic properties and characteristics within the proposed footprint and at the proposed elevation of the permeable pavement system.
- (2) **SHWT REQUIREMENTS.** The minimum separation between the lowest point of the subgrade surface and the SHWT shall be:
 - (a) two feet for infiltrating pavement systems; however, the separation may be reduced to a minimum of one foot if the applicant provides a soils report that demonstrates that the modified soil profile allows for infiltration of the design volume within 72 hours; and
 - (b) one foot for detention pavement systems.
- (3) **SITING.** Permeable pavement shall not be installed in areas where toxic pollutants are stored or handled.
- (4) **SOIL SUBGRADE SLOPE.** The soil subgrade surface shall have a slope of less than or equal to two percent.
- (5) **STONE BASE.** Washed aggregate base materials shall be used.
- (6) **PAVEMENT SURFACE.** The proposed pavement surface shall have a demonstrated infiltration rate of at least 50 inches per hour using a head less than or equal to 4 inches.
- (7) **RUNOFF FROM ADJACENT AREAS.** Runoff to the permeable pavement from adjacent areas shall meet these requirements:
 - (a) The maximum ratio of additional built-upon area that may drain to permeable pavement is 1:1. Screened rooftop runoff shall not be subject to the 1:1 loading limitation.
 - (b) Runoff from adjacent pervious areas shall be prevented from reaching the permeable pavement except for incidental, unavoidable runoff from stable vegetated areas.
- (8) **DRAW DOWN TIME.** Infiltrating permeable pavement systems shall be designed to dewater the design volume to the bottom of the subgrade surface within 72 hours. In-situ soils may be removed and replaced with infiltration media or infiltration media may be placed on top of in-situ soils if the applicant provides a soils report that demonstrates that the modified soil profile allows for infiltration of the design volume within 72 hours.
- (9) **OBSERVATION WELL.** Permeable pavement shall be equipped with a minimum of one observation well placed at the low point in the system. If the subgrade is terraced, then there shall be one observation well for each terrace. Observation wells shall be capped.
- (10) **DETENTION SYSTEMS.** Pavement systems may be designed to detain stormwater in the aggregate for a period of two to five days.
- (11) **EDGE RESTRAINTS.** Edge restraints shall be provided around the perimeter of permeable interlocking concrete pavers (PICP) and concrete grid pavers.
- (12) **GRADE WHEN DRY.** The soil subgrade for infiltrating permeable pavement shall be graded when there is no precipitation.
- (13) **INSPECTIONS AND CERTIFICATION.** After installation, permeable pavement shall be protected from sediment deposition until the site is completed and stabilized. An in-situ infiltration permeability test shall be conducted and certified on the pavement after site stabilization.

History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a); Eff. January 1, 2017.